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10/083,214	02/26/2002	Louis H. Odenwald	01-922	5634

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EXAMINER
JOO, JOSHUA

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/083,214	ODENWALD, LOUIS H.
Office Action Summary	Examiner	Art Unit	
	Joshua Joo	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>26 February 2002</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-42</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,6-13,17-23 and 26-42</u> is/are rejected.

7) ☒ Claim(s) <u>2-5,14-16,24 and 25</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

1.   Claims 1-42 are presented for examination.

2.   Claims 1, 6-13, 17-23, 26-42 are rejected.

Allowable Subject Matter

3.   Claims 2-5, 14-16, 24-25 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Claim Objections

4.   Claim 39 is objected to because of the following informalities: Claim 39 is the same as

claim 38, where both claims depend on claim 27. Appropriate correction is required.

Double Patenting

5.   The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent
possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In
re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164
USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
    A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to
overcome an actual or provisional rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be commonly owned with this
application. See 37 CFR 1.130(b).
    Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37
CFR 3.73(b).

6.   Claims 19-22 are rejected under the judicially created doctrine of obviousness-type

double patenting as being unpatentable over claims 1, 3-5 of US Patent #6,728, 789 in view of

Swank, US Patent #6,697,924.

7.   The instant application, which teaches of a controller communicatively coupled to the at

least one port communicatively coupling the input/output interface with the host and the at least

one port communicatively coupling the input/output interface with the target, wherein the

controller receives an identifier including a bus field and an ID field from the host, the controller

shifts at least one of the bus field and the ID field into a linear value to generate a logical

identifier, the logical identifier suitable for being utilized in conjunction with a look-up table to

provide access to the target, are common subjects with claim 1 of Patent #6,728, 789.

8.   The difference between the instant application and Patent #6,697,924 is that the

controller includes a target masking utility.

9.   Swank teaches of filter drivers that contain masking utilities to mask the identifiers of the

storages (Col 34, lines 37-49). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to include a masking utility because doing so would prevent

hosts from accessing unassigned storages.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11.   Claims 27, 30-36, 38-41 are rejected under 35 U.S.C. 102(e) as being unpatentable by Swank, US Patent #6,697,924.

12.   As per claim 27, Swank teaches an invention where a plurality of hosts, connected to fiber channel, issue requests to access a plurality of storage devices residing on a SAN. Swank's invention comprises of:

a plurality of targets (Col 21, line 49. Storage devices.);

plurality of input/output interfaces, each input/output interface being coupled to a host and at least one of the plurality of targets, each input/output interface being coupled to a host and at least one of the plurality of targets, each input/output interface having a target masking configuration utility for allocating at least one of the plurality of targets to the input/output interface (Fig. 1; Fig. 23; Col 21, lines 47; Col 34, lines 37-39; Col 60, lines 30-34. Plurality of hosts are connected to a plurality of storage devices. An I/O control corresponds to the filter driver, where the filter driver resides within each host. The filter driver provides masking of the LUNs.); and

one of the group consisting of a fabric, a loop, or a combination of a fabric and a loop which allows communications between the input/output interface and the plurality of targets (Col 22, lines 39-39. Interconnect is fiber channel fabric.) ,

wherein the targets allocated to an input/output interface are fewer than all the plurality of targets (Col 34, lines 40-41. List comprises of assigned storage devices.).

13.   As per claim 30, Swank teaches the mulithost system of claim 27, the input/output

interface further comprising an agent for communicating with agents of other input/output

interfaces (Col 22, lines 27-28; Col 23, lines 1-12. Host communicates with each other. Host

has agents.).

14.   As per claim 31, Swank teaches the mulithost system of claim 30, wherein only

input/interface has the target masking configuration utility (Col 34, lines 37-49. Col 60, lines 30-

34. I/O corresponds to the filter driver. Filter driver masks LUNs.).

15.   As per claim 32, Swank teaches the multihost system of Claim 30, wherein a local area

network provides the means of communication between the agents of the plurality of

input/output interfaces (Col 22, lines 27-28. LAN.).

16.   As per claim 33, Swank teaches the mulithost system of Claim 27, wherein each of the

plurality of input/output interfaces has a target masking configuration utility (Col 23, lines 1-2;

Col 34, lines 37-49. Filter driver, masking LUNs, resides on an agent. Agent is found in hosts.).

17.   As per claim 34, Swank teaches the multihost system of Claim 33, wherein the target

masking configuration utilities are in communication with each other through the one of the

group consisting of a fabric, a loop, or a combination of a fabric and a loop (Col 22, lines 35-38.

Host communicates with each other. Interconnect comprises fiber channel loop.).

18.   As per claim 35, Swank teaches the multihost system of Claim 27, wherein each of the

plurality of input/output interfaces is allocated with a single target in a one-to-one

correspondence. (Col 30, lines 9-11; Col 34, lines 37-49. The host is presented with a list of only assigned storage devices. The host may access the assigned LUNs of storage devices.).

19.   As per claim 36, Swank teaches the multihost system of Claim 27, wherein at least one of the plurality of input/output interfaces is allocated with two or more targets (One or more LUNs can be assigned to hosts.).

20.   As per claims 38 and 39, the Swank teaches the multihost system of Claim 27, wherein the allocation of the target to an input/output interface causes that target to appear invisible to the host coupled to the input/output interface (Col 34, lines 43-45. Filter driver masks the storage device, which was visible to the host.).

21.   As per claim 40, Swank teaches an invention where a plurality of hosts, connected to fiber channel, issue requests to access a plurality of storage devices residing on a SAN. Swank's invention comprises of:

       determining whether a target has been allocated to a host; and if the target has been allocated, then determining whether the target is to be disallocated, otherwise, proceeding to the next target (Col 38, lines 5-19. List of LUNs is presented, which determines if a LUN has been assigned and may be used to un-assign the LUN.).

22.   As per claim 41, Swank teaches the method of claim 40, if it is determined that the target is to be allocated, disallocating the target, otherwise, allocating the target according to a user defined rule (Col 38, lines 11-19. At the request of the administrator, the storage device is unassigned and reassigned to a host.).

Claim Rejections - 35 USC § 103

23.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

24.   Claims 1, 6-13, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable by

Sjolander et al, US Patent #6,587,959 (Sjolander hereinafter) and in view of Swank, US Patent

#6,697,924.

25.   As per claim 1, Sjolander teaches a method for accessing a hardware device by a host

wherein a unique identifier is used for accessing a look-up table that provides access between a

host server and the target device. Sjolander's invention comprises of:

at least one port communicatively coupling the input/output interface with a host (Fig 3;

Col 3, lines 44-47. Host connects to server.);

at least one port communicatively coupling the input/output interface with a target (Fig 3;

Col 3, lines 44-51. Hardware.); and

a controller communicatively coupled to the at least one port communicatively coupling

the input/output interface with the host and the at least one port communicatively coupling the

input/output interface with the target (Fig. 3; Col 3, lines 44-51; Col 4, lines 2-3. Server

connects to host and target. Server ports connects the target.), wherein the controller receives

an identifier from the host, the identifier indicating the target's address (Col 5, lines 24-26; 37-

39. Server receives the unique identifier, which contains hardware identifier.), the controller

generates a logical identifier from the identifier, the logical identifier suitable for being utilized in conjunction with a look-up table to provide access to the target (Col 4, lines 44-57; Col 5, lines 24-44. Server receives the hardware identifier and uses the look-up table to locate the corresponding local path to the hardware.).

26.   Sjolander does not teach wherein the target is selectively allocated to one and only one host.

27.   Swank teaches an invention for hosts accessing storage devices, where the host is presented with a list of only assigned storage devices. The host may access the assigned LUNs of storage devices (Col 30, lines 9-11; Col 34, lines 37-49).

28.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander and Swank because both inventions deal with accessing storage devices through the use of storage identifiers. The teaching of Swank to assign a storage device to one host prevents multiple hosts from accessing a storage device and prevents hosts from accessing unassigned storage devices.

29.   As per claim 6, Sjolander teaches the input/output interface as described in claim 1, wherein the logical identifier is utilized to index the look-up table (Col 4, lines 44-51; Col 5, lines 24-27, 41-44. Server uses a look-up table to locate the identifier and retrieves corresponding local path of the hardware. Look-up table includes an association between the hardware address and the local path.).

30.   As per claims 7 and 8, Sjolander does not teach the input/output interface as described

in claim 1, wherein the target is selectively allocated by a target masking configuration utility,

where the target masking configuration is implemented as a software program.

31.   Swank teaches of masking the identifiers to selectively allocate storage devices, where

masking is implemented by software (Col 34, lines 44-49; Col 70, lines 24-25; Col 73, lines 55-

66).

32.   It would have been obvious to one of ordinary skill in the art at the time the invention was

made to combine the teachings of Sjolander and Swank because both inventions deal with

accessing storage devices through the use of storage identifiers. The teaching of Swank to

mask the identifiers prevents hosts from improperly accessing unassigned storage devices.

33.   As per claims 9, 10, 11, Sjolander does not teach the input/output interface as described

in claim 7, wherein the target masking configuration utility communicates with at least on other

target masking configuration utility, wherein the target masking filter is wholly contained within

the input/output interface and communicates with at least one other host through an agent

contained within the input/output interface, and the agent of the input/output interface is in

communication with other agents of other input/output interfaces of other hosts.

34.   Swank teaches that hosts can communicate with each other, where agents are

implemented in the hosts. The filter driver, which resides within the agent, performs target

masking. Hosts also communicate to a SAN manager, which provides to the agents assigned

LUN IDs for masking (Col 22, lines 27-28; Col 34, lines 37-49; Col 44, lines 21-33.).

35.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander and Swank because both inventions deal with accessing storage devices through the use of storage identifiers. The teachings of Swank to implement agents to communicate with each other hosts allows a host to gather information regarding other hosts status and configuration.

36.   As per claim 12, Sjolander does not specifically teach the input/output interface as described in claim 11, wherein the communication is through a local area network (LAN).

37.   Swank teaches the hosts and storage devices are implemented in a LAN (Col 22, lines 27-29).

38.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander and Swank because both inventions deal with accessing storage devices through the use of storage identifiers. The teachings of Swank to use a LAN allows hosts to access the same database and allows for faster transmission of data.

39.   As per claim 13, Sjolander teaches a method for accessing a hardware device by a host wherein a unique identifier is used for accessing a look-up table that provides access between a host server and the target device. Sjolander's invention comprises of:

   receiving an identifier including a bus field and an ID field from the host (Col 4, lines 49-51; Col 5, lines 50-53. Port and Bus information.);

   generating a logical identifier from the received identifier (Col 4, lines 49-57. Look-up table is used to associate between hardware address and local path.);

referencing a look-up table utilizing the logical identifier to provide access to the target

Col 4, lines 49-57. Look-up table is used to associate between hardware address and local

path.).

Sjolander does not teach of allocating the target to the input/output interface via

integrated target masking.

40.   Swank teaches of masking the identifiers to selectively allocate storage devices, where

masking is implemented by software (Col 34, lines 44-49; Col 70, lines 24-25; Col 73, lines 55-

66).

41.   It would have been obvious to one of ordinary skill in the art at the time the invention was

made to combine the teachings of Sjolander and Swank because both inventions deal with

accessing storage devices through the use of storage identifiers. The teaching of Swank to

mask the identifiers prevents hosts from accessing unassigned storage devices.

44.   As per claim 17, Sjolander does not teach the method as described in claim 13, wherein

at least one of the bus field and the ID field is 8-bits. However, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to make fields 8-bits because

8-bits allows for the smallest unit of address storage in the memory of a computer.

42.   As per claim 18, Sjolander teaches the method as described in claim 13, wherein

referencing includes utilizing the logical identifier to index the look-up table (Col 4, lines 49-57.

Look-up table is used to associate between hardware address and the local path.).

45.   Claims 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable by

Sjolander, US Patent #6,587,959 and in view of Blumenau, US Patent #6,839,747, Dobberpuhl

et al, US Patent #6,754,718 (Dobberpuhl), and Swank, US Patent #6,697,924, and

46.   As per claim 23, Sjolander teaches a method for accessing a hardware device by a host

wherein a unique identifier is used for accessing a look-up table that provides access between a

host server and the target device. Sjolander's invention comprises of:

at least one means for communicatively coupling the input/output interface with a host

(Fig 3; Col 3, lines 44-47. Server.);

at least one means for communicatively coupling the input/output interface with a target

(Fig 3; Col 3, lines 44-51. Hardware.); and

a means for controlling communicatively coupled to the at least one port

communicatively coupling the input/output interface with the host and the at least one port

communicatively coupling the input/output interface with the target (Fig. 3; Col 3, lines 44-47;

Col 4, lines 2-3. Host is connected to the server, which is connected to the target.), wherein the

controller receives an identifier including an ID field from the host (Col 5, lines 24-26; 37-39.

Server receives the unique identifier, which contains hardware identifier.), the controller means

generates a means for logically identifying the from the received identifying means, the logical

identifying means suitable for being utilized in conjunction with a look-up table to provide access

to the target (Col 4, lines 44-57; Col 5, lines 24-44. Server receives the hardware identifier and

uses the look-up table to locate the corresponding local path to the hardware.).

47.   Sjolander does not teach the controlling means including a target masking configuration

utility which selectively assigns the target to one of two or more hosts.

48.   Blumenau teaches a system for managing storage in a storage system, where storage devices are assigned to multiple hosts (Col 28, lines 47-51).

49.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander and Blumenau because both teachings deal with accessing storage devices over a network. The teaching of Blumenau to assign a storage device to multiple hosts would increase the efficiency of Sjolander's teachings so that hosts do not have to wait until a storage device is available.

50.   Sjolander does not teach of receiving an identifier including a bus field. Dobberpuhl teaches of transmitting an identifier that contains the identifier of bus information (Col 3, lines 1-5; Col 4, lines 56-58).

51.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander, Blumenau, and Dobberpuhl because all the teachings deal with accessing storage devices over a network. The teachings of Dobberpuhl to including bus information in the identifier would enhance the teachings of Sjolander because the look-up table of Sjolander's system would not require bus information for a complete local path.

52.   Sjolander and Blumenau do not disclose of selectively assigning the targets to one of two or more hosts so that the look-up table is populated with fewer targets than a maximum number of targets. Swank teaches of masking the identifiers to selectively allocate storage devices and generating a list that is populated with just assigned LUNs (Col 34, lines 37-49; Col 70, lines 24-25; Col 73, lines 55-66).

53.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander, Blumenu, and Swank because all inventions deal with accessing storage devices through the use of storage identifiers. The teaching of Swank to mask the identifiers prevents hosts from accessing unassigned storage devices.

54.   As per claim 26, Sjolander teaches the input/output interface, wherein the logical identifier is utilized to index the look-up table (Col 4, lines 44-51; Col 5, lines 24-27, 41-44. Server uses a look-up table to locate the identifier and retrieves corresponding local path of the hardware. Look-up table includes an association between the hardware address and the local path.).

55.   Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable by Swank in view of Sjolander, US Patent #6,587,959.

56.   As per claim 28, Swank teaches of the plurality of input/output interfaces having a controller communicatively coupled to at least one port communicatively coupling the input/output interface with the host and at least one port communicatively coupling the input/output interface with the target (Fig. 1; Fig. 23. Col 21, lines 47-49; Col 45, lines 37-46; Col 46, lines 31-35. Plurality of hosts are connected to a plurality of storage devices. Host contains controllers, where the ports are connected to storage devices.).

57.   Swank does not teach wherein the controller receives an identifier from the host, the identifier indicating the target's address, the controller generates a logical identifier from the identifier the logical identifier suitable for being utilized in conjunction with a look-up table to provide access to the target.

58.   Sjolander teaches of server that uses a look-up table and retrieves a local path to the

hardware than corresponds to a received hardware identifier. Look-up table includes an

association between the hardware address and the local path. Identifier contains port and bus

information (Col 4, lines 44-57; Col 5, lines 24-27, 41-44).

59.   It would have been obvious to one of ordinary skill in the art at the time the invention was

made to combine the teachings of Swank and Sjolander because both inventions deal with

accessing storage devices over a network. The teachings of Sjolander to receive a hardware

identifier and to use a look-up table to retrieve an identifier for a local path to the storage device

conserves bandwidth because only the hardware identifiers need to be sent to the client upon

initialization rather then every path for the device.

60.   As per claim 29, Swank and Sjolander taught the mulithost system of claim 28. Swank

further teaches wherein only those targets which pass a user defined filter are entered into the

look-up table which uses the logical identifier so as to mask the visibility of those targets from

the host (Col 34, lines 37-49. Filter driver has a list of assigned LUNs. Filter driver masks

LUNs.).

61.   Claims 37 are rejected under 35 U.S.C. 103(a) as being unpatentable by Swank in view

of Blumenau, US Patent #6,839,747.

62.   As per claim 37, Swank does not teach the multihost system of Claim 36, wherein at

least one target is allocated to two or more input/output interfaces.

63.   Blumenau teaches a system for managing storage in a storage system, where storage devices are assigned to multiple hosts (Col 28, lines 46-51).

64.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sjolander and Blumenau because both inventions deal with accessing storage devices over a network.   The teaching of Blumenau to assign a storage device to multiple hosts increases the efficiency of Sjolander's invention so that hosts do not have to wait until a storage device is available.

65.   Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable by Swank in view of Jenkins et al, US Patent #4,470,111 (Jenkins hereinafter).

66.   As per claim 42, Swank does not teach the method of claim 41, if a target is allocated to more than one input/output interfaces, then assigning a priority order for the target.

67.   Jenkins teach the concept of a plurality of devices accessing a host, where a priority order is assigned (Col 1, lines 22-29).

68.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Swank and Jenkins because the teachings of Jenkins to assign a priority improves the teachings of Jenkins by allowing it to avoid conflicts that can arise between devices that are trying to access the host.

69.   Claims 19-22 are rejected under double patenting but would be in condition for allowance if the applicant overcomes the double patenting rejection.

Conclusion

70.   A shortened statutory period for reply to this Office action is set to expire THREE

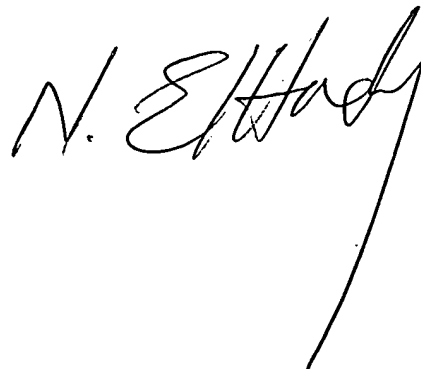MONTHS from the mailing date of this action.

71.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can

normally be reached on Monday to Friday 7 to 4.

72.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John A. Follansbee can be reached on 571 272-3964. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

73.   Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 26, 2005
JJ